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**BEFORE THE BOARD OF PATENT APPEALS  
AND INTERFERENCES**

Application Number: 10/038,312  
Filing Date: November 09, 2001  
Appellant(s): HONG, JUN-IL

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Douglas M. Owens III  
For Appellant

**EXAMINER'S ANSWER**

This is in response to the appeal brief filed 10/12/2010 appealing from the Office action mailed 04/27/2010.

**(1) Real Party in Interest**

The examiner has no comment on the statement, or lack of statement, identifying by name the real party in interest in the brief.

**(2) Related Appeals and Interferences**

The examiner is not aware of any related appeals, interferences, or judicial proceedings which will directly affect or be directly affected by or have a bearing on the Board's decision in the pending appeal.

**(3) Status of Claims**

The following is a list of claims that are rejected and pending in the application:

Claims 1-5.

**(4) Status of Amendments After Final**

The examiner has no comment on the appellant's statement of the status of amendments after final rejection contained in the brief.

**(5) Summary of Claimed Subject Matter**

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The examiner has no comment on the summary of claimed subject matter contained in the brief.

**(6) Grounds of Rejection to be Reviewed on Appeal**

The examiner has no comment on the appellant's statement of the grounds of rejection to be reviewed on appeal. Every ground of rejection set forth in the Office action from which the appeal is taken (as modified by any advisory actions) is being maintained by the examiner except for the grounds of rejection (if any) listed under the subheading "WITHDRAWN REJECTIONS." New grounds of rejection (if any) are provided under the subheading "NEW GROUNDS OF REJECTION."

**(7) Claims Appendix**

The examiner has no comment on the copy of the appealed claims contained in the Appendix to the appellant's brief.

**(8) Evidence Relied Upon**

<b>6,462,760</b>	<b>COX, Jr. ET. AL.</b>	<b>10-2002</b>
<b>6,211,858</b>	<b>MOON ET AL.</b>	<b>4-2001</b>

## **(9) Grounds of Rejection**

The following ground(s) of rejection are applicable to the appealed claims:

Claims 1-5 are rejected under 35 U.S.C. 103(a) as being unpatentable over Cox, Jr. et al. U.S. Patent 6,462,760 (hereinafter "Cox") and Moon et al. U.S. Patent 6,211,858 (hereinafter "Moon").

Referring to claim 1, Cox teaches a method comprising registering an initial function to the related individual state indicator corresponding to an initial state, by associating with the state indicator a task operation module corresponding to the initial function (the icon has an initial function associated with an initial state, i.e. the icon initially displayed in the state of "Find" shown in Figure 5A has a function, or task operation module of the Find operation associated therewith) (Cox: column 2, lines 5-16, column 5, lines 3-43 and further shown by the flowchart of Figure 4); registering a different function to the related individual state indicator corresponding to a current state change, by associating with the state indicator a task operation module corresponding to the different function corresponding to the current state change, when the state change to be reflected in a state representation of the related individual state indicator occurs (when a state change occurs, i.e. when an alternative operation has been requested, the appearance of the icon and the function corresponding to the icon changes; for example, when the state change of requesting an alternative operation is detected, the appearance of the icon changes from that shown in Figure 5A to that shown in Figure 5B, and the function/task

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operation module associated with the icon correspondingly changes to the "Replace" task operation) (Cox: column 2, lines 5-16, column 5, lines 3-43 and further shown by the flowchart of Figure 4); altering the state representation of the related individual state indicator corresponding to the current state change (when a state change occurs, i.e. when an alternative operation has been requested, the appearance of the icon changes; for example, when the state change of requesting an alternative operation is detected, the appearance of the icon changes from that shown in Figure 5A to that shown in Figure 5B) (Cox: column 2, lines 5-16, column 5, lines 3-43 and further shown by the flowchart of Figure 4); and invoking the associated task operation module corresponding to the registered different function upon receipt of a user input for designating the individual state indicator (when the user designates the icon by selecting the icon, the function/task operation, i.e. "Find", "Replace", etc. corresponding to the current state/operation of the icon is invoked/executed) (Cox: column 5, line 62-column 6, line 5).

Moon teaches a graphical user interface that displays a state indicator whose representation and function changes according to a state change (a meter icon is changed/rotated in response to a state change, i.e. an incoming mail, occurrence of an error condition, etc.; initially, the meter icon is displayed in a representation shown in Figure 5 with a corresponding registered function of being a batter power indicator; when a state change occurs, i.e. if there's a change in the state of the meter such as a decrease in signal strength, the meter icon is displayed in a different representation shown in Figure 6 with a different corresponding registered function of being a battery strength indicator) (Moon: column 2, lines 29-52 and column 5, line 41-column 6, line 43) similar to that of Cox. In addition, Moon further teaches that the state change causing the representation and function of the state indicator to be changed is specifically a state change of

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the portable terminal operation (the meter icon is changed/rotated in response to a state change of the portable terminal operation, i.e. the occurrence of an error condition, change in battery strength, change in signal strength, etc. in the portable intelligent communications device) Moon: column 2, lines 29-52 and column 5, line 41-column 6, line 43). It would have been obvious to one of ordinary skill in the art, having the teachings of Cox and Moon before him at the time the invention was made, to modify the change in representation and registered function of the state indicator of Cox to include the change in representation and registered function of the state indicator as a response to a change in state of the portable terminal operation, as taught by Moon. One would have been motivated to make such a combination in order to efficiently use the small screen space to indicate state changes in convenient portable devices (Moon: column 2, lines 29-39).

Referring to claim 2, Cox teaches a method comprising registering an initial function to the related individual state indicator corresponding to an initial state, by associating with the state indicator a task operation module corresponding to the initial function (the icon has an initial function associated with an initial state, i.e. the icon initially displayed in the state of "Find" shown in Figure 5A has a function, or task operation module of the Find operation associated therewith) (Cox: column 2, lines 5-16, column 5, lines 3-43 and further shown by the flowchart of Figure 4); registering a different function to the related individual state indicator corresponding to a current state change, by associating with the state indicator a task operation module corresponding to the different function corresponding to the current state change, when the state change to be reflected in a state representation of the related individual state indicator occurs (when a state change occurs, i.e. when an alternative operation has been requested, the

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appearance of the icon and the function corresponding to the icon changes; for example, when the state change of requesting an alternative operation is detected, the appearance of the icon changes from that shown in Figure 5A to that shown in Figure 5B, and the function/task operation module associated with the icon correspondingly changes to the "Replace" task operation) (Cox: column 2, lines 5-16, column 5, lines 3-43 and further shown by the flowchart of Figure 4); altering the state representation of the related individual state indicator corresponding to the current state change (when a state change occurs, i.e. when an alternative operation has been requested, the appearance of the icon changes; for example, when the state change of requesting an alternative operation is detected, the appearance of the icon changes from that shown in Figure 5A to that shown in Figure 5B) (column 2, lines 5-16, column 5, lines 3-43 and further shown by the flowchart of Figure 4); determining whether coordinates of a touch screen input indicate that a representation area of the related individual state indicator has been touched, upon receipt of the touch screen input (the user can select a representation area of the related individual state indicator by selecting the icon via a stylus or finger on the touch screen) (Cox: column 4, lines 25-30 and column 5, line 62-column 6, line 5); and invoking the associated task operation module corresponding to the registered different function when the coordinates of the touch screen input indicate that the representation area of the related individual state indicator has been touched (if the user has selected the icon via a stylus or finger on the touch screen, the function/task operation, i.e. "Find", "Replace", etc. corresponding to the current state/operation of the selected icon is invoked/executed) (Cox: column 4, lines 25-30 and column 5, line 62-column 6, line 5). Moon teaches a graphical user interface that displays a state indicator whose representation and function changes according to a state change (a meter icon is



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changed/rotated in response to a state change, i.e. an incoming mail, occurrence of an error condition, etc.; initially, the meter icon is displayed in a representation shown in Figure 5 with a corresponding registered function of being a batter power indicator; when a state change occurs, i.e. if there's a change in the state of the meter such as a decrease in signal strength, the meter icon is displayed in a different representation shown in Figure 6 with a different corresponding registered function of being a battery strength indicator) (Moon: column 2, lines 29-52 and column 5, line 41-column 6, line 43) similar to that of Cox. In addition, Moon further teaches that the state change causing the representation and function of the state indicator to be changed is specifically a state change of the portable terminal operation (the meter icon is changed/rotated in response to a state change of the portable terminal operation, i.e. the occurrence of an error condition, change in battery strength, change in signal strength, etc. in the portable intelligent communications device) Moon: column 2, lines 29-52 and column 5, line 41-column 6, line 43). It would have been obvious to one of ordinary skill in the art, having the teachings of Cox and Moon before him at the time the invention was made, to modify the change in representation and registered function of the state indicator of Cox to include the change in representation and registered function of the state indicator as a response to a change in state of the portable terminal operation, as taught by Moon. One would have been motivated to make such a combination in order to efficiently use the small screen space to indicate state changes in convenient portable devices (Moon: column 2, lines 29-39).

Referring to claim 3, Cox teaches a method comprising registering an initial function to the related individual state indicator corresponding to an initial state, by associating with the state indicator a task operation module corresponding to the initial function (the icon has an

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initial function associated with an initial state, i.e. the icon initially displayed in the state of “Find” shown in Figure 5A has a function, or task operation module of the Find operation associated therewith) (Cox: column 2, lines 5-16, column 5, lines 3-43 and further shown by the flowchart of Figure 4); registering a different function to the related individual state indicator corresponding to a current state change, by associating with the state indicator a task operation module corresponding to the different function corresponding to the current state change, when the state change to be reflected in a state representation of the related individual state indicator occurs (when a state change occurs, i.e. when an alternative operation has been requested, the appearance of the icon and the function corresponding to the icon changes; for example, when the state change of requesting an alternative operation is detected, the appearance of the icon changes from that shown in Figure 5A to that shown in Figure 5B, and the function/task operation module associated with the icon correspondingly changes to the “Replace” task operation) (Cox: column 2, lines 5-16, column 5, lines 3-43 and further shown by the flowchart of Figure 4); altering the state representation of the related individual state indicator corresponding to the current state change (when a state change occurs, i.e. when an alternative operation has been requested, the appearance of the icon changes; for example, when the state change of requesting an alternative operation is detected, the appearance of the icon changes from that shown in Figure 5A to that shown in Figure 5B) (Cox: column 2, lines 5-16, column 5, lines 3-43 and further shown by the flowchart of Figure 4); determining whether a cursor or an input focus is positioned over a representation area of the related individual state indicator, upon receipt of a user button input (the user can select a representation area of the related individual state indicator by selecting the icon with a cursor device) (Cox: column 5, line 62-column 6, line

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5); and invoking the associated task operation module corresponding to the registered different function when the cursor or input focus is positioned over the representation area of the related individual state indicator (if the user has selected the icon via the cursor device, the function/task operation, i.e. "Find", "Replace", etc. corresponding to the current state/operation of the selected icon is invoked/executed) (Cox: column 4, lines 25-30 and column 5, line 62-column 6, line 5).

Moon teaches a graphical user interface that displays a state indicator whose representation and function changes according to a state change (a meter icon is changed/rotated in response to a state change, i.e. an incoming mail, occurrence of an error condition, etc.; initially, the meter icon is displayed in a representation shown in Figure 5 with a corresponding registered function of being a batter power indicator; when a state change occurs, i.e. if there's a change in the state of the meter such as a decrease in signal strength, the meter icon is displayed in a different representation shown in Figure 6 with a different corresponding registered function of being a battery strength indicator) (Moon: column 2, lines 29-52 and column 5, line 41-column 6, line 43) similar to that of Cox. In addition, Moon further teaches that the state change causing the representation and function of the state indicator to be changed is specifically a state change of the portable terminal operation (the meter icon is changed/rotated in response to a state change of the portable terminal operation, i.e. the occurrence of an error condition, change in battery strength, change in signal strength, etc. in the portable intelligent communications device) Moon: column 2, lines 29-52 and column 5, line 41-column 6, line 43). It would have been obvious to one of ordinary skill in the art, having the teachings of Cox and Moon before him at the time the invention was made, to modify the change in representation and registered function of the state indicator of Cox to include the change in representation and registered function of the state

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indicator as a response to a change in state of the portable terminal operation, as taught by Moon. One would have been motivated to make such a combination in order to efficiently use the small screen space to indicate state changes in convenient portable devices (Moon: column 2, lines 29-39).

Referring to claim 4, Cox teaches a method comprising registering an initial function to the related individual state indicator corresponding to an initial state, by associating with the state indicator a task operation module corresponding to the initial function (the icon has an initial function associated with an initial state, i.e. the icon initially displayed in the state of “Find” shown in Figure 5A has a function, or task operation module of the Find operation associated therewith) (Cox: column 2, lines 5-16, column 5, lines 3-43 and further shown by the flowchart of Figure 4); registering a different function to the related individual state indicator corresponding to a current state change, by associating with the state indicator a task operation module corresponding to the different function corresponding to the current state change, when the state change to be reflected in a state representation of the related individual state indicator occurs (when a state change occurs, i.e. when an alternative operation has been requested, the appearance of the icon and the function corresponding to the icon changes; for example, when the state change of requesting an alternative operation is detected, the appearance of the icon changes from that shown in Figure 5A to that shown in Figure 5B, and the function/task operation module associated with the icon correspondingly changes to the “Replace” task operation) (Cox: column 2, lines 5-16, column 5, lines 3-43 and further shown by the flowchart of Figure 4); altering the state representation of the related individual state indicator corresponding to the current state change (when a state change occurs, i.e. when an alternative

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operation has been requested, the appearance of the icon changes; for example, when the state change of requesting an alternative operation is detected, the appearance of the icon changes from that shown in Figure 5A to that shown in Figure 5B) (Cox: column 2, lines 5-16, column 5, lines 3-43 and further shown by the flowchart of Figure 4); determining whether coordinates of a touch screen input indicate that a representation area of the related individual state indicator has been touched, upon receipt of the touch screen input (the user can select a representation area of the related individual state indicator by selecting the icon via a stylus or finger on the touch screen) (Cox: column 4, lines 25-30 and column 5, line 62-column 6, line 5); and invoking the associated task operation module corresponding to the registered different function when the coordinates of the touch screen input indicate that the representation area of the related individual state indicator has been touched (if the user has selected the icon via a stylus or finger on the touch screen, the function/task operation, i.e. "Find", "Replace", etc. corresponding to the current state/operation of the selected icon is invoked/executed) (Cox: column 4, lines 25-30 and column 5, line 62-column 6, line 5). However, Cox fails to explicitly teach that the indicator is specifically a message indicator corresponding to a messaging operation with a registered message reading function. Moon teaches a graphical user interface that displays a state indicator whose representation and function changes according to a state change (a meter icon is changed/rotated in response to a state change, i.e. an incoming mail, occurrence of an error condition, etc.; initially, the meter icon is displayed in a representation shown in Figure 5 with a corresponding registered function of being a batter power indicator; when a state change occurs, i.e. if there's a change in the state of the meter such as a decrease in signal strength, the meter icon is displayed in a different representation shown in Figure 6 with a different corresponding

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registered function of being a battery strength indicator) (Moon: column 2, lines 29-52 and column 5, line 41-column 6, line 43) similar to that of Cox. In addition, Moon further teaches a message indicator corresponding to messaging operation and a registered message reading function (the meter icon can correspond to a messaging operation, i.e. arrival of a new mail with a registered message reading function, i.e. status of messages, new mail alert) (Moon: column 2, lines 29-52 and column 5, line 41-column 6, line 43). ). It would have been obvious to one of ordinary skill in the art, having the teachings of Cox and Moon before him at the time the invention was made, to modify the changing state indicator with its corresponding function taught by Cox to include the specific message indicator corresponding to a function of a messaging operation, as taught by Moon. A message icon indicator is a specific type of icon indicator and use of an icon indicator to indicate message operations is well known to one of ordinary skill in the art. One would have been motivated to modify the icon indicator of Cox to include many specific types of indicators with corresponding functions, including the well known message indicator of Moon in order to obtain the predictable result of allowing the icon to indicate and provide access to a wide array of operations.

Referring to claim 5, Cox teaches a method comprising registering an initial function to the related individual state indicator corresponding to an initial state, by associating with the state indicator a task operation module corresponding to the initial function (the icon has an initial function associated with an initial state, i.e. the icon initially displayed in the state of “Find” shown in Figure 5A has a function, or task operation module of the Find operation associated therewith) (Cox: column 2, lines 5-16, column 5, lines 3-43 and further shown by the flowchart of Figure 4); registering a different function to the related individual state indicator

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corresponding to a current state change, by associating with the state indicator a task operation module corresponding to the different function corresponding to the current state change, when the state change to be reflected in a state representation of the related individual state indicator occurs (when a state change occurs, i.e. when an alternative operation has been requested, the appearance of the icon and the function corresponding to the icon changes; for example, when the state change of requesting an alternative operation is detected, the appearance of the icon changes from that shown in Figure 5A to that shown in Figure 5B, and the function/task operation module associated with the icon correspondingly changes to the "Replace" task operation) (Cox: column 2, lines 5-16, column 5, lines 3-43 and further shown by the flowchart of Figure 4); altering the state representation of the related individual state indicator corresponding to the current state change (when a state change occurs, i.e. when an alternative operation has been requested, the appearance of the icon changes; for example, when the state change of requesting an alternative operation is detected, the appearance of the icon changes from that shown in Figure 5A to that shown in Figure 5B) (Cox: column 2, lines 5-16, column 5, lines 3-43 and further shown by the flowchart of Figure 4); determining whether coordinates of a touch screen input indicate that a representation area of the related individual state indicator has been touched, upon receipt of the touch screen input (the user can select a representation area of the related individual state indicator by selecting the icon via a stylus or finger on the touch screen) (Cox: column 4, lines 25-30 and column 5, line 62-column 6, line 5); and invoking the associated task operation module corresponding to the registered different function when the coordinates of the touch screen input indicate that the representation area of the related individual state indicator has been touched (if the user has selected the icon via a stylus or finger

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on the touch screen, the function/task operation, i.e. "Find", "Replace", etc. corresponding to the current state/operation of the selected icon is invoked/executed) (Cox: column 4, lines 25-30 and column 5, line 62-column 6, line 5). However, Cox fails to explicitly teach that the indicator is specifically an alarm indicator corresponding to an alarm operation with a registered alarm function. Moon teaches a graphical user interface that displays a state indicator whose representation and function changes according to a state change (a meter icon is changed/rotated in response to a state change, i.e. an incoming mail, occurrence of an error condition, etc.; initially, the meter icon is displayed in a representation shown in Figure 5 with a corresponding registered function of being a batter power indicator; when a state change occurs, i.e. if there's a change in the state of the meter such as a decrease in signal strength, the meter icon is displayed in a different representation shown in Figure 6 with a different corresponding registered function of being a battery strength indicator) (Moon: column 2, lines 29-52 and column 5, line 41-column 6, line 43) similar to that of Cox. In addition, Moon further teaches an alarm indicator corresponding to an alarm operation with a registered alarm function (the meter icon can correspond to an alarm operation, i.e. out of range indicator, battery power falling to a critical level, etc., with a function of indicating that an error condition that requires attention has occurred) (Moon: column 2, lines 29-52 and column 5, line 41-column 6, line 43). It would have been obvious to one of ordinary skill in the art, having the teachings of Cox and Moon before him at the time the invention was made, to modify the changing state indicator with its corresponding function taught by Cox to include the specific alarm indicator corresponding to a function of an alarm operation, as taught by Moon. An alarm icon indicator is a specific type of icon indicator and use of an icon to indicate an alarm is well known to one of ordinary skill in the



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art. One would have been motivated to modify the icon indicator of Cox to include many types of indicators with corresponding functions, including the well known alarm indicator of Moon in order to obtain the predictable result of allowing the icon to indicate and provide access to a wide array of operations.

### **(10) Response to Argument**

#### **A. Independent Claim 1 is unpatentable over Cox in view of Moon**

A1. The applicant states that the icon in Cox is not a state indicator. The examiner respectfully disagrees. As show in Figures 5A-5C, icon 74 is displayed with a text description indicating the state of the icon; for example, the icon shown in Figure 5A is in a state that is capable of executing the "Find" operation, while the icon shown in Figure 5B is in a state that is cable of executing the "Replace" operation. Thus, the examiner respectfully argues that the icon taught by Cox indicates whether it is in the "Find" operation state, the "Replace" operation state, etc. and is therefore a state indicator.

A2. The applicant argues that in Cox, an icon's appearance and operation changes in response to input from a user and not in response to a state change, and a user changing the appearance and operation of an icon cannot be equated with registering of a different function to the related individual state indicator corresponding to a current state change; therefore, the

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applicant argues that in Cox, no state changes are used to change the appearance or operation of the icon. The examiner respectfully disagrees. Cox teaches that when a user input is received, an icon's state changes; for example, when user input on the icon is received, an icon that was originally in the state shown in Figure 5A, i.e. in the "Find" operation state changes to another state shown in Figure 5B, i.e. the "Replace" state (column 2, lines 5-16). When the state changes from Figure 5A to Figure 5B, the function of icon 74 also changes from the function of performing a "Find" operation upon selection to the function of performing a "Replace" operation upon selection. Cox recites, in column 2, lines 5-16, "associating an icon with a plurality of operations...an icon's visual appearance is used to associate the icon with a particular operation. In response to input from the user, the icon's appearance changes to indicate that the icon is now associated with an alternative operation. Thus, the graphical user interface (GUI) for operating a computer system can use a single icon to represent and provide access to a plurality of operations that otherwise may require several icons". As shown by the above cited passage, the icon has many functions, i.e. operations associated/registered to it and when the icon changes states from one display form (Figure 5A) to another display form (Figure 5B), the function/operation that is registered to, or represented by the icon also changes. Therefore, the examiner respectfully maintains that Cox's teaching of changing the appearance and function of the icon indicator when a state change occurs equates to the registering of a different function to the related individual state indicator corresponding to a current state change, as recited in independent claim 1.

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A3. The applicant argues that while Moon teaches a state indicator whose representation changes according to a state change, Moon fails to teach a state indicator whose function changes according to a state change because the meters taught by Moon does not have a function registered to it and selecting the state indicator by means of inputting or touching by a user selecting the meter performs no associated function. The examiner respectfully disagrees. Moon teaches that the meter icon displayed in area 450 of Figure 5 changes to display different types of meters according to a change in state, see column 5, line 63-column 6, line 10. Each of these different types of meters have a different function when it is displayed, see column 2, lines 29-52; for example, if the state change of the battery power falling below a certain level occurs, then the meter is changed to display the battery power meter, which has the function of alerting of the user about a critical condition relating to battery power. Similarly, when other meters are displayed according to respective changes in states, such as the signal strength meter, print status meter, handset out of range indicator, etc., different functions are registered to the meter, such as having the function of alerting the user about a critical condition relating to the signal strength, alerting the user about a critical condition relating to the printer status, alerting the user about a critical condition relating to the current range, etc. Therefore, the examiner respectfully argues that the state indicator taught by Moon changes its appearance and function according to a state change because each time the indicator changes in response to a state change, it has the functions of alerting the user to different critical conditions associated with the state change. Although Moon does not explicitly teach that the state indicator is selected to invoke the function, the primary reference Cox teaches this feature. As previously stated, in Cox, when the state change from Figure 5A to Figure 5B occurs, the function of icon 74 also changes from the function of a

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"Find" operation to the function of a "Replace" operation, see column 2, lines 5-16.

Furthermore, when the user designates/selects the icon (when it is in the state shown in Figure 5B for example), the registered function of the "Replace" operation is executed, see column 5, line 62-column 6, line 5. Therefore, the examiner respectfully argues that the combination of Cox and Moon teaches that a selection of the state indicator by means of inputting or touching by a user of the state indicator invokes the associated/registered function. Furthermore, in the BPAI Decision rendered on 08/29/2008, the board indicated that the ability of the user to directly invoke an intended function is known in the discussion associated with the admitted prior art on Specification pages 2-3 of the instant application (see page 5 of the BPAI decision:

“Significantly, the discussion of and showing in Appellant's admitted prior art figure 2 at pages 2 and 3 of the Specification as filed appear to us to buttress the Examiner's positions with respect to Pinard and Horwitz, since it is known in the art that state changes can occur, and even new state indicators be produced with respect to stated indicators illustrated in Appellant's prior art figure 1. The discussion on these pages indicates that the user may indirectly invoke a function or directly invoke a function associated with the changed state indicator, as claimed. The ability of the user to directly invoke an intended function as expressed in the Summary of the Invention at page 3, lines 21 through 26, and at Specification page 10, lines 13 through 19, is not only known in the discussion associated with the admitted prior art at Specification pages 2 and 3, but it also is not recited in the claims on appeal”). Therefore, the examiner respectfully argues that the feature of performing a function registered to a state indicator in response to user selection of the state indicator is known in the prior art and does not constitute non-obvious subject matter.

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A4. The applicant argues that in Cox, the appearance and function of the icon does not change in response to the change in state of a portable terminal operation, while in Moon, there is no teaching of invoking the function registered to the meter icon upon user selection of the meter icon; therefore, the applicant concludes that neither Cox nor Moon, teach both a state indicator that has multiple functions registered thereto that are invoked when the state indicator is selected, while indicating a specific state that corresponds to one of the multiple functions. The examiner respectfully disagrees. In response to applicant's arguments against the references individually, one cannot show nonobviousness by attacking references individually where the rejections are based on combinations of references. See *In re Keller*, 642 F.2d 413, 208 USPQ 871 (CCPA 1981); *In re Merck & Co.*, 800 F.2d 1091, 231 USPQ 375 (Fed. Cir. 1986). As mentioned above in section A2, Cox teaches a state indicator that changes appearance when a change in state occurs and that has multiple functions registered thereto that are invoked when the state indicator is selected, such as the "Find" function or the "Replace" function. Although the appearance and function registered to the state indicator of Cox is not changed due to a change in state of a portable terminal device, Moon provides this teaching. Moon teaches a state indicator whose appearance and registered function changes according to a state change (see section A3 above) similar to that of Cox. Moon further teaches that the state change is explicitly a change in the state of a portable terminal operation, i.e. states such as the battery power, signal strength, print status, etc. of a portable intelligent communications device (see column 1, line 66-column 2, line 2 and column 2, lines 29-49). Therefore, one of ordinary skill in the computer arts would have been motivated to modify the graphical user interface of Cox, which changes the appearance and registered function of a state indicator according to a state change and invokes

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the function registered to the state indicator when the state indicator is selected to include the change in appearance and registered function of a state indicator in response to state changes of a portable terminal operation, as taught by Moon, in order to obtain a graphical user interface which changes the appearance and registered function of a state indicator in response to state changes of a portable terminal operation and invokes that registered function when the state indicator is selected. Such a combination allows users to maximize screen space usage without compromising the amount of information that can be displayed and the functions that can be executed.

In view of the above, the examiner respectfully argues that the combination of Cox and Moon teaches the subject limitations.

B. Independent Claims 2-3 are unpatentable over Cox in view of Moon

With respect to claims 2-3, the applicant argues that Cox in view of Moon fails to render claims 2-3 obvious for the same reasons as claim 1. The examiner respectfully disagrees and refers to the response to arguments with respect claim 1 in section A above.

C. Independent Claim 4 is unpatentable over Cox in view of Moon

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C1. With respect to claim 4, the applicant argues that Cox in view of Moon fails to render claim 4 obvious for the same reasons as claim 1. The examiner respectfully disagrees and refers to the response to arguments with respect claim 1 in section A above.

C2. Additionally, the applicant argues that neither Cox, nor Moon, either alone or in combination, provides any teaching of suggestion for the selection of a state indicator invoking a function, and therefore, these references also fail to teach or suggest registering an initial function to the related individual message state indicator corresponding to an initial state of a messaging operation, and registering an individual message reading function to the related individual message state indicator. The examiner respectfully disagrees and argues that the combination of Cox and Moon teaches the selection of a state indicator invoking a function (see section A above). Furthermore, Moon teaches that the meter icon displayed in area 450 of Figure 5 can have an initial message function of alerting the user of a print status message corresponding to an initial message state; when the state changes, i.e. when new mail arrives, the meter icon can be changed to the message reading function of alerting the user of the presence of new mail (see column 2, lines 29-52 and column 6, line 59-column 7, line 7). Therefore, the examiner respectfully argues that the combination of Cox and Moon teaches the subject limitations of registering an initial function to the related individual message state indicator corresponding to an initial state of a messaging operation, and registering an individual message reading function to the related individual message state indicator.

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D. Independent Claim 5 is unpatentable over Cox in view of Moon

D1. With respect to claim 5, the applicant argues that Cox in view of Moon fails to render claim 5 obvious for the same reasons as claim 1. The examiner respectfully disagrees and refers to the response to arguments with respect claim 1 in section A above.

D2. Additionally, the applicant argues that neither Cox, nor Moon, either alone or in combination, provides any teaching of suggestion for the selection of a state indicator invoking a function, and therefore, these references also fail to teach or suggest registering an initial function to the related individual alarm state indicator corresponding to an initial state of an alarm operation and registering an alarm function to the related individual alarm state indicator. The examiner respectfully disagrees and argues that the combination of Cox and Moon teaches the selection of a state indicator invoking a function (see section A above). Furthermore, Moon teaches that the meter icon displayed in area 450 of Figure 5 can have an initial function of alarming the user about a decrease in signal strength corresponding to an initial alarm state of the signal strength decreasing; when the state changes, i.e. when a battery power falls to a critical level, the meter icon can be changed to have the alarm function of alarming the user about the battery power falling to a critical level (see column 2, lines 29-52 and column 5, line 53-column 6, line 9). Therefore, the examiner respectfully argues that the combination of Cox and Moon teaches the subject limitations of registering an initial function to the related individual alarm state indicator corresponding to an initial state of an alarm operation and registering an alarm function to the related individual alarm state indicator.



E. Conclusion

In view of the above response to arguments, the examiner respectfully argues the combination of Cox and Moon teaches the subject limitations of claims 1-5; therefore, the examiner respectfully maintains that claims 1-5 are unpatentable.

**(11) Related Proceeding(s) Appendix**

No decision rendered by a court or the Board is identified by the examiner in the Related Appeals and Interferences section of this examiner's answer.

For the above reasons, it is believed that the rejections should be sustained.

Respectfully submitted,

/TING LEE/

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Conferees:

/Kieu Vu/

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